WHAT IS CLAIMED IS :

1. A method for controlling the functioning of a tire, comprising the step of:

(a) determining estimations or measurements of the slip G_i and the coefficient of friction μ_i prevailing at said slip, for at least one pair "i" of values (G_i, μ_i) in a coordinate system having an axis G, an axis μ and an origin;

(b) determining the value of the slope α_i of the straight line passing through the origin and through each pair of values (G_i, μ_i);

(c) calculating a coefficient B by direct calculation or by a regression from a sufficient number of pairs of (α_i, G_i) so as to estimate the value of slope α_0 at the origin; and

(d) using α_0 in an indicator of the longitudinal stiffness of the tread pattern.

2. A method for controlling the functioning of a tire according to Claim 1, in which the slope α_i is determined by direct calculation $\alpha_i=\mu_i/G_i$.

3. A method for controlling the functioning of a tire according to Claim 1, in which the slope α_i is determined by carrying out a suitable regression.

4. A method for controlling the functioning of a tire according to Claim 1, in which the following linear regression is carried out:

$$\Sigma_{GG} = \sum G_j^2, \Sigma_{G\mu} = \sum G_j \cdot \mu_j, \alpha_i = \frac{\Sigma_{G\mu}}{\Sigma_{GG}}$$

5. A method for controlling the functioning of a tire according to Claim 1, in which a coefficient B, representative of the longitudinal stiffness, is calculated by the following linear regression, applied to "n" measured or estimated points:

$$B^{Lin} = \frac{\sum \alpha \cdot \sum G^2 - \sum G \cdot \alpha \cdot \sum G}{n \cdot \sum G^2 - (\sum G)^2}$$

6. A method for controlling the functioning of a tire according to Claim 1, in which the coefficient B, representative of the longitudinal stiffness, is calculated by the following exponential regression, applied to "n" measured or estimated points:

$$B^{Exp} = \frac{\sum Ln(\alpha) \cdot \sum G^2 - \sum G \cdot Ln(\alpha) \cdot \sum G}{n \cdot \sum G^2 - \left(\sum G\right)^2}$$

7. A method for controlling the functioning of a tire according to Claim 1, in which an average value of α_0 is determined and a comparison with reference values for the tire subject to processing is made, in order to estimate the wear rate.

8. A method for controlling the functioning of a tire according to Claim 7, wherein an estimation of the remaining height H of the tread pattern is made as follows:

$$H = H_0 \cdot \frac{Stiffness}{Stiffness_0}.$$

9. A method for controlling the functioning of a tire according to Claim 7 or 8, in which an average value of α_0 is determined on the basis of a predetermined number of brakings or accelerations.

10. A method for controlling the functioning of a tire according to Claim 7 or 8, in which an average value of α_0 is determined on the basis of a predetermined distance.